第４講 国公立大英語長文演習④

次の英文を読んで，下記の設問に答えなさい。

We have all felt that little ‘zing’ when we see someone we fancy, and a much greater ‘ZING!’ when these feelings are shared by the other person. What is happening? The question of why we experience ‘zings’ can be answered at two levels - first, by asking what makes someone attractive, and second, by asking why we have evolved to find certain features attractive. The first is a question of immediate causes, and the second addresses the evolutionary significance of attraction. Usually, these two types of questions are tackled by different sorts of researchers, concentrating respectively on physiological mechanisms and evolutionary factors. But evolutionary biologists interested in sexual attraction have addressed them together.

Those evolutionary biologists who study animal behavior believe that a particular male and female have ended up coupling because either the female has chosen the male, the male has competed for and ‘won’ the female, or because both partners have come to some mutual agreement about liking each other. (1)<u>It（ ① ）（ ② ）（ ③ ）first（ ④ ）（ ⑤ ）（ ⑥ ）（ ⑦ ）（ ⑧ ） context</u>. In formulating his idea, about（ あ ）selection, he was concerned about traits that did nothing to promote their owners’ survival. The extravagant plumage of male birds and the cumbersome antlers of deer made their owners conspicuous and vulnerable to predators, so how could they possibly evolve by natural selection? Darwin’s answer was sexual selection. Extravagant traits probably did reduce their owners’ survival by making them more vulnerable to

predators, but they more than compensated by making their owners more competitive or more attractive to members of the opposite sex, so that they left more offspring — more copies of their genes — than less ornamented males.

NOTE

(2) Sexual selection accounts for many of the differences between males and females and Darwin saw it operating through two processes: competition between members of the same sex — usually males competing for females — and choice by one sex of some members of the other — usually females choosing among males. Competition between males for females accounted for the evolution of weapons such as teeth, spurs, and antlers, while choice of males by females accounted for otherwise useless ornaments such as plumes, wattles, and perfumes. (　い　) selection is about differential reproductive success — the more attractive or competitive individuals are, the more descendants they will leave.

(3) Darwin's contemporaries had no problem with the concept of male-male competition. They could see it happening in every farmyard, and the idea coincided nicely with Victorian ideas about sex being driven by active males pursuing passive partners. Female choice was another matter altogether. It was invisible, and anyway, it was felt, females probably did not have enough brainpower to make such informed choices.

NOTE

(4)When Darwin died, the idea of female choice all but died with him and, like Sleeping Beauty, remained essentially unconscious for one hundred years. The person who planted the awakening intellectual kiss and roused the whole field of sexual selection to new heights was behavioral ecologist Malte Andersson of the University of Gothenburg in Sweden. He conducted (5)an elegant experiment that involved shortening and elongating (using scissors and superglue) the tail feathers of long-tailed widowbirds, and showed that females preferred the long-tailed males. Female choice was alive and flying and, in later research, was shown to be widespread throughout the animal kingdom.

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NOTE

A. 下線部（1）の空所（ ① ）～（ ⑧ ）を下のア～クで埋め，本文の内容に最もふさわしい英文を完成させるとき，空所（ ② ）（ ⑥ ）（ ⑧ ）に入るものをそれぞれ記号で答えなさい。ただし，いずれの記号も一回ずつしか使えません。

ア . an　　イ . Charles Darwin　　ウ . evolutionary　　エ . into

オ . put　　カ . sexual attraction　　キ . was　　ク . who

B. 本文中の空所（ あ ），（ い ）に内容的に最もよく当てはまる語を本文中からそれぞれ選んで答えなさい。

C. 下線部（2）を日本語に訳しなさい。

D. 下線部（3）に意味が最も近いものを下のア～エから選び，記号で答えなさい。

ア . As a modern scholar, Darwin was not concerned with problems that were related to make competitiveness.

イ . Darwin's followers found competition between males and others to be a problematic idea.

ウ . Darwin's modern age well understood the view that men like to compete with each other.

エ . People in Darwin's time could easily understand the notion that males compete for females.

E．下線部（4）を日本語に訳しなさい。

F．下線部（5）とその後の研究でわかったことを 30 字以内の日本語で簡潔に説明しなさい。ただし，句読点も字数に含めます。

G. 本文の内容に最もよく当てはまる文を下のア～エから選び，記号で答えなさい。

ア. By asking what makes some males more attractive, evolutionary biologists investigate the social mechanisms by which animals leave more offspring.

イ. Darwin believed extravagant traits such as plumes and wattles could not possibly guarantee that predators would survive.

ウ. Extravagant traits can make their owners more competitive or more attractive to members of the opposite sex, but also more vulnerable to predators.

エ. That males are selected by females explains the evolution of bodily weapons such as teeth and spurs.

NOTE

第４講　　解答

＜解答＞

A. ②　イ　⑥　エ　⑧　ウ

B.（あ）natural　　（い）sexual

C. 全訳の下線部(2)を参照。

D. エ

E. 全訳の下線部(4)を参照。

F. 雌が長い尾の雄を好むような選択が動物界に広がっていること。

G. ウ

＜全訳＞

私達は皆，好きな人に出会うと，ちょっと「ビビビ」と感じてしまい，この感情を他の人と共有すると，かなり強く「ビビビ」と感じる。何が起きているのか。私たちがなぜ「ビビビ」と感じるかという疑問は，二段階で回答することができる。第一に，人はなぜ魅力的になるかを尋ねること，そして第二に，なぜ私たちは進化してある特徴を魅力的だと思うのかを尋ねることだ。最初の疑問は，直接の原因であり，二番目は進化の側面から魅力が持つ意義に取り組むことだ。たいていは，これら二種類の疑問は異なる種類の研究者が取り組んでおり，生理学上の仕組みと進化の要因にそれぞれ集中している。しかし，性的な魅力に興味を持つ進化生物学者は，それらを一緒にして取り組んでいる。

動物の行動を研究する進化生物学者は，特定の雄や雌が最終的に結ばれるのは，雌が雄を選ぶか，雄が競争して雌を「勝ち取る」か，あるいは両性がお互い好きになることについて相互承諾に至ることが原因だと信じている。

性的な魅力を進化の文脈で最初に説明したのは，チャールズ・ダーウィンだった。自然淘汰に関する考えを明確にする際に，彼はその持ち主の生存を促すことに何の役にも立たない特徴を心配していた。雄の鳥の派手な羽や鹿の非常に長い角が，その所有者を目立たせて，捕食者に攻撃されやすくなるから，どうやって自然淘汰で進化できたのだろうか。ダーウィンの解答は，性淘汰だった。派手な特徴はおそらく，捕食者により攻撃されやすくなることで，所有者の生存率を実際に減らしていたが，その特徴は所有者をその反対の性別に対して，より競争優位に，より魅力的にすることで，補う以上のことをしており，結果として，あまり飾りのない雄よりもより多くの子孫，

すなわち，その遺伝子のコピーを残した。

(2)性淘汰は，雄と雌の違いの多くを説明しており，ダーウィンは，それが二つの過程を通じて影響を及ぼしているのを目にした。たいていは雄が雌を求めて競争する同性間の競争，そしてたいていは雌が雄を選ぶ，一方の性が他方の性を選ぶというものだ。雌を求める雄同士の競争が原因で，歯，けづめ，角のような武器が進化してきたが，雌が雄を選ぶのは，そうでなければ役に立たない羽，ひげ，においのような飾りが原因であった。性淘汰は異なる繁殖上の成功に関するもので，個体が魅力的で競争優位であればあるほど，それだけ多くの子孫を残すだろうということだ。

ダーウィンと同時代の人は，雄同士の競争という概念に何も問題を覚えなかった。彼らはそれが全ての農場で起きているのを目にできただろうし，その考えは，受け身のパートナーを追い求める積極的な雄によって突き動かされた，性に関するビクトリア朝の考えとしっかりと一致していた。雌の選択は，完全に別の問題だった。それは目に見えないものではあるが，とにかく，雌はそのような情報に基づく選択をするほどの脳の力を持っていなかったのではないかと感じられた。

(4)ダーウィンが亡くなると，雌の選択という考えは彼とともにほぼ消えたが，眠れる森の美女のように，百年間本質的に意識が向けられないままであった。目覚めの知的なキスをして，性淘汰全体のフィールドを新たな高みへと引き上げた人は，スウェーデンにあるヨーテボリ大学の行動生態学者，マルテ・アンダーソンだった。彼は洗練された実験を行い，そこではハサミやのりを使って，長い尾を持つハタオドリの尾の羽を短くしたり長くしたりしたのだが，雌は尾の長い雄を好むことを示した。雌の選択は生きていて，広がっており，後の研究で，動物の王国全体に広がっているとわかった。

第４講 重要語彙リスト ＊一つ一つ何度も繰り返して，覚えてください

1	fancy	好む
2	evolve	進化する
3	certain	ある
4	feature	魅力
5	immediate	直接の
6	address	取り組む
7	significance	意義
8	tackle	取り組む
9	respectively	それぞれ
10	physiological	生理学上の
11	mechanism	仕組み
12	end up ～ing	最終的に～する
13	couple	結ばれる
14	mutual	相互の
15	formulate	明確にする
16	trait	特徴
17	extravagant	派手な
18	conspicuous	目立つ
19	vulnerable	弱い
20	predator	捕食者
21	natural selectin	自然淘汰
22	opposite	反対の
23	offspring	子孫
24	gene	遺伝子
25	ornament	飾る
26	account for	～を説明する
27	spur	けづめ
28	perfume	におい
29	reproductive	繁殖の
30	descendant	子孫
31	contemporary	同時代の人
32	coincide with	～と一致する
33	passive	受動的な
34	altogether	完全に
35	invisible	目に見えない
36	all but	ほとんど
37	rouse	～をかき立てる，～を目覚めさせる
38	elegant	優雅な
39	elongate	長くする
40	widespread	広がる

第４講　音読用白文　①　②　③　④　⑤　⑥　⑦　⑧　⑨　⑩

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It was Charles Darwin who first put sexual attraction into an evolutionary context. In formulating his idea, about natural selection, he was concerned about traits that did nothing to promote their owners’ survival. The extravagant plumage of male birds and the cumbersome antlers of deer made their owners conspicuous and vulnerable to predators, so how could they possibly evolve by natural selection? Darwin’s answer was sexual selection. Extravagant traits probably did reduce their owners’ survival by making them more vulnerable to predators, but they more than compensated by making their owners more competitive or more attractive to members of the opposite sex, so that they left more offspring — more copies of their genes — than less ornamented males.

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